AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (currently amended): An iron-based rare-earth nanocomposite magnet having a composition represented by the formula: $T_{100-x-y-z-n}Q_xR_yTi_zM_n$, where T is either Fe alone or Fe in combination with at least one element selected from the group consisting of Co and Ni; Q is at least one element selected from the group consisting of B and C; R is at least one rare-earth element including substantially no La or Ce; and M is at least one metal element selected from the group consisting of Al, Si, V, Cr, Mn, Cu, Zn, Ga, Zr, Nb, Mo, Ag, Hf, Ta, W, Pt, Au and Pb, the mole fractions x, y, z and n satisfying the inequalities of

5 at% ≤ x ≤ ~~10 at%~~8 at%,

7 at% ≤ y ≤ 10 at%,

0.1 at% ≤ z ≤ 5 at% and

0 at% ≤ n ≤ 10 at%, respectively,

wherein the magnet includes $R_2T_{14}Q$ compound phases and α-Fe phases that form a magnetically coupled nanocomposite magnet structure, and

wherein the $R_2T_{14}Q$ compound phases have an average crystal grain size of 20 nm or more and the α-Fe phases are present at grain boundary triple points in a grain boundary region between the $R_2T_{14}Q$ compound phases, the grain boundary region having a thickness of 20 nm or less,

wherein a ratio of the average crystal grain size of the $R_2T_{14}Q$ compound phases relative to that of the α-Fe phases is 2.0 or more, and

wherein the magnet has magnetic properties including a coercivity of at least 400 kA/m and a remanence of at least 0.9 T.

Claim 2 (previously presented): The iron-based rare-earth nanocomposite magnet of claim 1, wherein the $R_2T_{14}Q$ compound phases have an average crystal grain size of 30 nm to 300 nm and the α-Fe phases have an average crystal grain size of 1 nm to 20 nm.

Claims 3 and 4 (canceled).

Claim 5 (original): The iron-based rare-earth nanocomposite magnet of claim 1, wherein the α-Fe phases account for at least 5 vol% of the overall magnet.

Claims 6-8 (canceled).

Claim 9 (original): A bonded magnet including a powder of the iron-based rare-earth nanocomposite magnet of claim 1.

Claim 10 (currently amended): A method for producing an iron-based rare-earth nanocomposite magnet, the method comprising the steps of:

preparing a molten alloy having a composition represented by the formula: $T_{100-x-y-z-n}Q_xR_yTi_zM_n$, where T is either Fe alone or Fe in combination with at least one element selected from the group consisting of Co and Ni; Q is at least one element selected from the group consisting of B and C; R is at least one rare-earth element including substantially no La or Ce; and M is at least one metal element selected from the group consisting of Al, Si, V, Cr, Mn, Cu, Zn, Ga, Zr, Nb, Mo, Ag, Hf, Ta, W, Pt, Au and Pb, the mole fractions x, y, z and n satisfying the inequalities of

5 at% ≤ x ≤ ~~10 at%~~8 at %,

7 at% ≤ y ≤ 10 at%,

0.1 at% ≤ z ≤ 5 at% and

0 at% ≤ n ≤ 10 at%, respectively;

rapidly cooling and solidifying the molten alloy to make a rapidly solidified alloy including at least 20 vol% of $R_2T_{14}Q$ compound phases with an average crystal grain size of 80 nm or less; and

heating the rapidly solidified alloy, thereby making an iron-based rare-earth nanocomposite magnet including the $R_2T_{14}Q$ compound phases and α-Fe phases that form a magnetically coupled nanocomposite magnet structure, where the $R_2T_{14}Q$ compound phases have an average crystal grain size of 20 nm or more, the α-Fe phases are present at grain boundary triple points in a grain boundary region between the $R_2T_{14}Q$ compound phases, the grain boundary region having a thickness of 20 nm or less, wherein a ratio of the average crystal grain size of the $R_2T_{14}Q$ compound phases relative to that of the α-Fe phases is 2.0 or more, and the magnet has magnetic properties including a coercivity of at least 400 kA/m and a remanence of at least 0.9 T.

Claim 11 (previously presented): The method of claim 10, wherein the $R_2T_{14}Q$ compound phases have an average crystal grain size of 30 nm to 300 nm and the α-Fe phases have an average crystal grain size of 1 nm to 20 nm.

Claim 12 (original): The method of claim 10, wherein the step of rapidly cooling includes quenching and solidifying the molten alloy to make a rapidly solidified alloy with an average thickness of 50 μm to 300 μm and with a thickness standard deviation σ of 5 μm or less.

Claims 13 and 14 (canceled).